AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended)   A method for use in a time division multiple access wireless communication system of simulcasting information and transmitting dedicated message information from a plurality of proximately located base stations forming a cellular pattern over the same wireless frequency channel, the method comprising the steps of:

constructing frames for transmission by said plurality of base stations comprising control information, simulcast message information and dedicated message information within predetermined time slots of said frames; and

allocating said simulcast message information and said dedicated message information to time slots of the same frame predetermined by said control information of said frame.

2. (original)   The method as recited in claim 1, wherein said control information fills time slots at the beginning of the frame and said control information is varied between predetermined time slots within said frames such that immediately proximate base stations transmit control information in different predetermined time slots.

3. (original)   The method as recited in claim 1, wherein said simulcast information represents the same information transmitted by said plurality of base stations and said dedicated message information comprises information representing information intended for a single user.

4. (original)   The method as recited in claim 1, wherein said allocation of said simulcast information and said dedicated message information to certain time slots varies over time.

5. (original)   The method as recited in claim 1, wherein said time slots of said frame comprise information time and guard time, said information time and said guard time of each time slot varying in duration over time.

6. (original)   The method as recited in claim 3, wherein said simulcast information fills time slots having an extended cyclic extension time to mitigate channel dispersion.

7. (original)   The method as recited in claim 6, wherein said simulcast information time slot extension comprises a guard time approximately twenty-five or higher per cent as long as said simulcast information and said dedicated information comprises a guard time of less than twenty-five per cent of said dedicated information.

8. (original)   The method as recited in claim 1, further comprising the step of allocating guard time for dedicated information time slots differently from allocating guard time for simulcast information time slots to mitigate simulcast dispersion and to maximize throughput of said dedicated message information.

9. (original)   The method as recited in claim 1, wherein said wireless communication system utilizes orthogonal frequency division multiplexing modulation.

10. (original)   The method according to claim 4, wherein said allocation of simulcast and dedicated time slots are interspersed.

11. (original)   The method according to claim 4, wherein said allocation involves setting boundaries between simulcast and dedicated time slots, said boundaries between simulcast and dedicated time slots being movable in accordance with a volume of simulcast information and dedicated information.

12. (original)   The method according to claim 11, wherein said boundaries are dynamically movable.

13. (original)   The method as recited in claim 1, wherein said wireless communication system utilizes a combination of orthogonal frequency division multiplexing modulation and time division multiple access modulation.

14. (currently amended)   A method for use in a time division multiple access wireless communication system of simulcasting information and transmitting dedicated message information from a plurality of base stations forming a cellular pattern over the same wireless frequency channel, the method comprising the steps of:

constructing frames for transmission by said plurality of base stations comprising control information, simulcast information and dedicated message information within predetermined time slots of said frames, wherein said control information fills time slots at the beginning of the frame and said control information is varied between predetermined time slots within said frames such that immediately proximate base stations transmit control information in different predetermined time slots; and

allocating said simulcast information and said dedicated message information to time slots of the same frame predetermined by said control information of said frame.

15. (original)   The method according to claim 14, wherein said base stations of said cellular pattern are widely separated, resulting in the reuse of said wireless frequency channel and said predetermined time slots.

16. (currently amended)   A method for use in a combined OFDM and time division multiple access wireless communication system of simulcasting information and transmitting dedicated message information from a plurality of base stations forming a cellular pattern over the same wireless frequency channel, the method comprising the steps of:

constructing frames for transmission by said plurality of base stations comprising control information, simulcast message information and dedicated message information within predetermined time slots of said frames; and

allocating said simulcast message information and said dedicated message information to time slots of the same frame predetermined by said control information of said frame.

17. (currently amended)   An apparatus for use in a combined OFDM and time division multiple access wireless communication system of simulcasting information and transmitting dedicated message information from a plurality of base stations forming a cellular pattern over the same wireless frequency channel, comprising a control processor including:

means for constructing frames for transmission by said plurality of base stations comprising control information, simulcast message information and dedicated message information within predetermined time slots of said frames; and

means for allocating said simulcast <u>message</u> information and said dedicated message

information to time slots of the same frame predetermined by said control information of said

frame.

18. (new)   The method as recited in claim 1, wherein said frames are constructed to

comprise control information, simulcast message information and dedicated message information

within separate time slots of said frames.